

## Crops Bulletin

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Prepared by  
**Paul Kassel**  
Extension Field  
Agronomist

*Serving Clay, Buena  
Vista, Dickinson,  
Emmet, Kossuth, and  
Palo Alto Counties*

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**Nitrogen concerns.** Recent rains and standing water have raised the question, "what has happened to our nitrogen?" There are no easy answers but the following are some thoughts on what to do with nitrogen (N) management for 2008.

- Corn looks stressed for more reasons than just N loss. Poor root development, corn on corn conditions, waterlogged soils, lack of sun and lack of heat has led to the appearance of N deficient corn.
- Estimates of N losses can be 40 to 60 lbs/a or more – see <http://www.extension.iastate.edu/CropNews/2008/0611JohnSawyer.htm> for more info.
- Consider more N if growing conditions improve and N deficiency symptoms persist. However, added N may not always produce greater yields – based on past research and experience.
- Consider application rates of 40 – 50 lbs/a of N. Rates above 50 lbs/a N have not produced greater yields under these conditions.

**Corn yield expectations.** Poor growing conditions have certainly lowered yield potential for 2008, but by how much? Consider the following:

- Growing degree day (GDU) accumulation continues to lag 75 to 100 units behind normal.
- See <http://www.extension.iastate.edu/CropNews/2008/0609pope.htm> for GDU info.
- Crop development is likely further behind than what the GDU info tells us. Cloudy weather and wet soils will further delay corn development.
- Pollination dates will tell the story. Above normal temperatures in the next 4- 5 weeks would allow corn to catch up. An average pollination date of July 20 would lessen the effects of the wet spring.
- Corn will need to grow more than 2.5 leaves per week to pollinate by July 20. Normally corn develops about two leaves per week.
- Conversely, cool weather could delay pollination dates to late July and would greatly reduce our 2008 corn crop yield potential.